June 17, 2010

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Ex Parte Notice
CG Docket Nos. 10-213, 10-145, 10-51; WT Docket No. 96-198

Dear Ms. Dortch:

On Thursday, June 9, 2011, Gregg Vanderheiden, of the Information Technology and Telecommunication Access RERCs, met with Karen Peltz Strauss, Rosaline Crawford, and Eliot Greenwald, Consumer and Government Affairs Bureau; David Hu, Elizabeth Lyle, Tom Peters, and Jeffrey Tignor, Wireless Telecommunications Bureau; and Walter Johnston, Office of Engineering & Technology.

During the discussion the RERC reiterated some of its comments made earlier in the 10-213 docket regarding the need for clear definitions and the creation of policies and rules under the 21st Century Communications and Video Accessibility Act (CVAA) that would create an effective but fair and level playing field. The need for a common standard to ensure interoperability was emphasized along with the need for industry flexibility with different technology platforms. There were no prepared materials or handouts. The text below covers the major points raised and includes some additional thoughts since the meeting. This posting was delayed because hand notes made during the meeting regarding topics discussed were misplaced and needed to be reconstructed.

1) Not Impede or Impair

A critical element of the Act is that carriers and product or service providers not impede or impair accessibility through the implementation of their products or services. This is expressed in different ways in the Act but it is useful to create a single concept since the form and format of technologies is changing so rapidly.

The concept of “shall not impede or impair accessibility” would capture succinctly the different concepts or issues that have been identified.

“***Shall not impede or impair accessibility or accessibility related information***” would cover

- shall not strip off accessibility information (for example captions or video description, etc) that are present [in media or video-conference information]
- shall not install equipment or features that can’t or don’t support accessibility information
    - e.g. equipment or features are not installed that are incapable of supporting any accessibility related content that is present or transmitted across the network.
- shall not configure network equipment such that it would block or discard accessibility information
    - e.g. on a SIP-based VoIP call that includes text in parallel with voice, the gateways, firewalls, routers, etc are not configured to pass the voice stream but block or drop the text stream.
- shall convey any accessibility related information that is present in an industry recognized standard format
    - e.g. if captions are included with video (in a standard way) they must not be stripped off purposefully or accidentally during storage
- shall display any accessibility related information that is present in an industry recognized standard format
    - e.g. if captions are included with video (in a standard way) it must be possible to display them. They can be always displayed, or they can be displayed on request – but they must not be suppressed or inaccessible.
- shall not block users from substituting accessible versions of content
    - e.g. a video conferencing service/product would not prevent a user from substituting an accessible video in place of an inaccessible version displayed as part of a video-conferencing presentation. For example a version of the video with embedded sign language interpretation obtained from another source or created from the original source by a service that adds the embedded sign language interpreter could be substituted for the original video.
- shall not prevent the incorporation or passing along of accessibility related information

- e.g. authoring tools must allow authors to include accessibility information they have (for example captions) with regular information (for example audio-video information) so they can be sent together.

"Shall not impede or impair" would not include, or imply, a requirement to ADD accessibility information – only to "not impede or impair" the integrity, incorporation, or use of accessibility related information/content that is present and/or desired to be conveyed.

2. Interoperable Video Conferencing Product/Service

The interpretation of the term "**Interoperable"** in **Interoperable Video Conferencing Product/Service** is central to the law yet the term is not defined. The following was offered as a definition in keeping with the language and intent of the law.

Interoperable (Video Conferencing Product/Service)

Any video-conferencing product or service that works with a video-conferencing product/service from another company sufficiently that they can exchange the main video content of the conference, or any product or service that offers an interface for exchange of the main video content that is intended for use by products from other companies.

- This applies if the design makes it possible to interoperate - it does not require that the products are always interoperable in all configurations
- This does not require that every aspect of the two products interoperate, only that the main video content interoperate (otherwise a single, or a few seldom used features could make a product exempt)
- This does NOT apply if the second product works with the first only because the second company hacked the first company's product in an unauthorized way to create interoperability in contravention of the first company's wishes - as evidenced by the first company's efforts to prevent such interoperability.
- This DOES apply if
    - The first company published the interface to its product to facilitate interoperability with products from other companies
    - Private and confidential agreements and/or technology sharing is done between the first and second company so that they second company's products will work with the first company's.

- Other companies make their products work with the first company's product – and the first company does nothing to impede or otherwise actively discourage others from making their products work with the first
    - (i.e. the first company condones and allows the interoperability though it is not a publicized feature)
    - This is included to prevent bad actors from trying to skirt regulations by not officially supporting interoperability (seeking to be exempt because they are not interoperable) while they actually condone and benefit from interoperability with other companies' products.

3. Industry Recognized Standards

There are limits on what industry should be required to support with their systems. For example, industry should not be required to support proprietary formats of individual companies. However, a format that a company creates for the express purpose of providing interoperable accessibility across companies' products should be supported.

The term "industry recognized standards" has been used in discussions to draw the line between what is appropriate to expect industry to support and what is not. The term, however, has not been well defined.

There are different ways that "industry" can recognize a standard. And there are different industries as well. "Standards" include:

- International standards from an international standards body
- Standards created by other commonly recognized standards groups that are not 'internationally recognized standards organizations' that are used widely by industry
- De-facto standards created by a single company (or group of companies or industry consortium) that are used widely in the industry

Standards can also be commonly used among mainstream companies or could be commonly used within assistive technology companies.

For the purposes of this act an "**industry recognized standard**" for accessibility information should be:

"Any publicly defined specification used to convey accessibility related content that is widely referenced by assistive technology or mainstream industry for use in interoperable products."

The term "recognized industry standard-setting organizations" is also used (in the Act) though only in connection with recommendations being made by the *Video Programming and Emergency Access Advisory Committee* that must "insofar as possible" incorporate the "standards, protocols, and procedures that have been adopted" by these organizations in its recommendations. Again it is noted that industry recognizes and uses standards from a wide range of organizations and there is no known comprehensive list of organizations whose standards industry recognizes and uses. Lists of recognized industry standard-setting organizations exist but are all different, with only large international standards bodies in common.

4. Interoperability, most-widely-used, and backward compatibility

A critical issue around accessibility is the interoperability of accessibility related equipment, services and information. Interoperability of mainstream products is ensured by the marketplace. However it has been repeatedly demonstrated that mainstream market forces have not been sufficient to ensure interoperability of accessibility related information.

Interoperability cannot occur unless any two products or services that are being used together support a common format for information. This leaves two options. All products support all possible formats, or all products support at least one common format for each technical environment. Supporting all possible formats is not practical, and if new protocols are to be allowed in the future, not technically or logically possible.

The remaining approach would be to have a single standard for each technical environment that all products for that technical environment support. This is in fact the most cost effective mechanism (and what industries tend to do themselves automatically where market pressures require interoperability across companies). However, there is reluctance by regulators to specify what that standard must be. The problem is that not specifying a specific common standard that must be used (e.g. just requiring that products "interoperate") cannot work. A company creating a product today does not know what formats other companies will support in

their unannounced products. The only way for all companies to build their products to interoperate is if they all know in advance at least one format they all will (must) use.

Proposed solution:

A solution that does not require the FCC to specify a standard would be for the FCC to require that companies support the "Most-Widely-Used" standard as the "common interoperability standard" for each communication environment and then identify what that standard is. This allows the format to be determined by the marketplace – and allows an automatic mechanism for evolution to new standards in the future (see below)

The requirement would have two parts – to allow different interoperability formats to be used in different technical environments.

1) All companies must support the "**Most-Widely-Used" Commercial Standard format for any particular communication technical environment** as the common interoperability standard for products made for that technical environment.
2) All companies that create products or services that connect from one communication technical environment to another, must translate accessibility information between the Most-Widely-Used format for the first environment and the Most-Widely-Used Format for the second where the two systems interconnect.

"Most-widely-used" is defined as the standard that is implemented in products or services by the greatest number of companies. For environments that do not have a particular accessibility format standard, companies would create one. This would usually be done by the organization or companies that originated or maintain the environment. When implemented it would become the Most-widely-used.

Examples of "Most-Widely-Used" formats for accessibility information today

- **for PSTN** and real-time text in the US the Most-Widely-Used format would be TIA-825a
- **for SIP VoIP** and real-time text the Most-Widely-Used format would be RFC 4103
- **for Skype environment** – there is no Most-Widely-Used format for real-time text. When Skype defines one – then all interoperable technologies would support it. (See below regarding Skype's ability to later change this by creating a new one in parallel and eventually fading the first)

- **for XMPP based VoIP** there is no Most-Widely-Used format for real-time text now – but a real-time text format for XMPP is being created. When adopted by multiple companies, it would qualify as the "Most-Widely-Used" and should then be supported for VoIP over XMPP environment.

If multiple formats are proposed, the one that is most widely adopted would become the standard that must be supported.'

Support for future advances and standards

The approach with the "Most-widely-used" concept has the advantage that it provides for real inter-operability today yet does not freeze today's standard in regulation. Industry can move to a new format at any time. The process for doing this would be to introduce the new format in parallel. Whenever two products both support the new format, they can use it instead of the old interoperability (most-widely-used) format. Over time more and more products could adopt the new format (supporting the old format as well – for backward compatibility with older equipment). Eventually all equipment still in use would support the new format and it would be just as widely used as the old. It could then be declared as qualifying as "most widely used" and support for the old format could be dropped without losing interoperability with any equipment or services then in use. Industry could also hasten this process by acting together with the government to replace remaining legacy products that do not support the new format with product that do. (In fact, there is growing support to use just such an approach to eliminate a current "most widely used" format for real-time text on PSTN (the TTY format) as soon as the its "technology environment" (the PSTN) fades. In fact there is even discussions of creating IP over analog devices to hasten the time when it can be retired.)

This is, in fact, the way market pressures work with mainstream products (for those aspects of critical concern to mainstream users).

The only other approach to ensure that there is interoperability and also future evolution is to specify in regulation the particular accessibility formats for each communication technical environment and then update the regulations in a similar process to the above. This would also be effective and could be used. Industry could follow the same path as above and simply petition the FCC to change the required interoperability standard when it was supported as widely as the old. It would, however, also require the FCC to name the interoperability standards for each new platform that evolves and becomes central and important to

communication. The more general approach with the "Most-Widely-Used" concept, therefore, is recommended and would work across different FCC proceedings/ areas, making it easier for companies who must meet different regulations for different technologies or the same technology in different contexts.

Pursuant to Section 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206, a copy of this submission is being provided to the meeting attendees. Please contact the undersigned with any questions in connection with this filing.

Respectfully submitted,

/s/ Gregg Vanderheiden

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